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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,850	08/11/2000	Byung-Jin Kim	0465-1915PUS1	8507
2292 7590 01/30/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER VENT, JAMIE J	
			ART UNIT 2621	PAPER NUMBER
			NOTIFICATION DATE 01/30/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

09/635,850

Applicant(s)

KIM ET AL.

Examiner

Jamie Vent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20, 22-28, 30, 32-36, 38, 40-45, 47, 49-51 and 53-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20, 22-28, 30, 32-36, 38, 40-45, 47, 49-51, and 53-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 20, 2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claim 20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 20, 22-28, 30, 32-36, 38, 40-45, 47, 49-51, and 53-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Na et al (US 6,504,996) in view of Slattery et al (US 6,064,676) in further view of Schwartz (US 6,310,898).

[claims 20, 38, 47, & 53]

In regard to Claims 20, 38, 47, and 53, Na et al discloses a method of generating a transport stream, comprising:

- reproducing, from a recording medium, an MPEG transport stream composed of a series of transport packets carrying data (Figure 4 shows a reproducing means of a DVD as described in Column 3 Lines 1-27); and
- inserting data through a digital interface (Figure 2); however, fails to disclose inserting into the reproduced MPEG transport stream, program managing information for managing presentation of certain data carried in the reproduced MPEG transport stream; and the transferring the MPEG transport stream including the inserted program managing information through the digital interface.

Slattery et al discloses that data carried on the reproduced MPEG transport stream provides information when a discontinuity occurs as described in Column 9 Lines 47+ through Column 19 Lines 1-26 which describes the determining of a discontinuity and proper output to the transport stream. The process of identifying the discontinuity provides the system the ability to identify and respond to a discontinuity of the transport stream and thereby providing appropriate data at that time. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of generating a transport stream and further incorporate that the reproduction of data on the MPEG stream when discontinuity occurs to provide appropriate timing of the data.

Na et al in view of Slattery et al discloses a system with reproduced MPEG transport stream containing discontinuity; however, fails to disclose the transferring the

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MPEG transport stream including the inserted program information through the digital interface wherein the inserting step include: generating the program managing information in the form of a transport packet; and inserting the generated transport packet into the reproduced MPEG transport stream. Schwartz teaches a system wherein A/V transport streams are multiplexed through the generating of MPEG transport streams through inserting of TS packets containing generated PSI information (Column 2 Lines 24+ through Column 3 Lines 1-26. The system provides the inserting of the generated transport packets back into the stream to allow for the desired compressed A/V streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the MPEG transport stream, as disclosed by Na et al in view of Slattery, and further teach the system to insert transport streams with management information back into the MPEG stream, as disclosed by Swartz, to provide the system with appropriate data information regarding the stream:

[claims 22, 40, & 49]

In regard to Claims 22, 40, and 49, Na et al discloses a method of claim 21, wherein the generated transport packet is inserted between two points in the reproduced MPEG transport stream (Column 4 Lines 23-42 describes the inserting of two points that contain no audio/video packets).

[claims 23, 41, & 50]

In regard to Claims 23, 41, and 50 Na et al discloses a method of claim 22, wherein there are no audio/video transport packets between the two points in the reproduced

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MPEG transport stream (Column 4 Lines 23-42 describes the inserting of two points that contain no audio/video packets).

[claims 24 & 42]

In regard to Claims 24 and 42, Na et al discloses a method of claim 21, wherein the generated transport packet is inserted between two of the transport packets existing in the reproduced MPEG transport stream (Column 8 Lines 17-44 describes the inserting between transport packets).

[claims 25, 43, & 51]

In regard to Claims 25, 43, and 51, Na et al discloses a method of claim 20, wherein in the reproducing step, the recording medium is an optical disc (Figure 4 shows an optical disk, DVD).

[claims 26 & 44]

In regard to Claims 26 and 44, Na et al discloses a method of claim 20, wherein in the reproducing step, the MPEG transport stream is an MPEG-2 transport stream (Column 6 Lines 17-21 describes the MPEG-2 transport stream that is used for reproducing of the data).

[claims 27, 34, 35, 36, & 45]

In regard to Claims 27, 34, 35, 36 and 45, Na et al discloses a method of claim 21, wherein the inserting step is performed within an optical disc player (Figure 2 shows an optical disc player as described in Column 4 Lines 10-16).

[claims 28]

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In regard to Claim 28 Na et al discloses a method of claim 27, wherein the reproducing step is performed by the optical disc player (Figure 2 shows an optical disc player as described in Column 4 Lines 10-16).

[claims 30 & 54]

In regard to Claims 30 and 54, Na et al in view of Slattery discloses a method of generating a transport stream, comprising:

- recording, on a recording medium, an MPEG transport stream composed of a series of transport packets carrying data (Figure 4 shows a recording means of a DVD as described in Column 3 Lines 1-27); and;
- reproducing, from the recording medium, the recorded MPEG transport stream (Figure 4 shows a reproducing means of a DVD as described in Column 3 Lines 1-27); however fails to disclose
- inserting, into the reproduced MPEG transport stream, program managing information for managing presentation of certain data carried in the reproduced MPEG transport stream when a discontinuity occurs in the MPEG transport stream

Na et al in view of Slattery et al discloses a system with reproduced MPEG transport stream containing discontinuity; however, fails to disclose the transferring the MPEG transport stream including the inserted program information through the digital interface wherein the inserting step include: generating the program managing information in the form of a transport packet; and inserting the generated transport packet into the reproduced MPEG transport stream. Schwartz teaches a system

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wherein A/V transport streams are multiplexed through the generating of MPEG transport streams through inserting of TS packets containing generated PSI information (Column 2 Lines 24+ through Column 3 Lines 1-26. The system provides the inserting of the generated transport packets back into the stream to allow for the desired compressed A/V streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the MPEG transport stream, as disclosed by Na et al in view of Slattery, and further teach the system to insert transport streams with management information back into the MPEG stream, as disclosed by Swartz, to provide the system with appropriate data information regarding the stream.

[claims 32 & 33]

In regard to Claims 32 and 33, Na et al discloses a method of claim 31, wherein the generated transport packet is inserted between two points in the reproduced MPEG transport stream where there are no audio/video transport packets between the two points (Column 4 Lines 23-42 describes the inserting of two points that contain no audio/video packets).

[claims 55, 56, 57, 58, 59, & 60]

In regard to Claims 55, 56, 57, 58, 59, and 60, Na et al discloses a method of claim 20; however fails to disclose:

- detecting a null time interval in the MPEG transport stream, said null time interval corresponding to said discontinuity, wherein the inserting step inserts the program managing information into the detected null time interval;

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- wherein the inserting step inserts the program managing information into the detected null time interval.

Slattery et al discloses a system wherein information is inserted in the transport stream as seen in Figure 2. Additionally, as described in Column 5 Lines 28+ describes detecting a null time interval that provides the transport stream the ability to identify transport streams and thereby allows management information to be entered the transport stream. Therefore, it would be obvious to one of ordinary skill in the art to use the transport streams, as disclosed by Na et al and further incorporate a system wherein the null value is used to identify transport streams, as disclosed by Slattery et al.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- ***Anderson (US 6,088,357).***

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 571-272-7384. The examiner can normally be reached on 7:30am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JJV



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